

**Amendments to the Claims:**

This claim listing replaces all prior versions of the claims.

Claims 1-45 (canceled).

46. (New) A plasma lamp comprising:

- a solid body of dielectric material;
- a bulb support extending from the solid body and forming an opening;
- a bulb extending through the opening of the bulb support and positioned such that a portion of the bulb is adjacent to the solid body and separated from the solid body by a gap; and
- a feed coupled to the solid body to provide energy to the bulb through the solid body.

47. (New) The plasma lamp of claim 46, wherein the solid body is shaped to form a resonant waveguide for the energy provided by the feed.

48. (New) The plasma lamp of claim 46, wherein the solid body comprises alumina and the bulb support comprises alumina.

49. (New) The plasma lamp of claim 46, wherein the bulb support is substantially thinner than the solid body of dielectric material.

50. (New) The plasma lamp of claim 46, wherein the gap is enclosed by the solid body, the bulb and the bulb support.

51. (New) A plasma lamp comprising:

- a waveguide body having a dielectric constant greater than 2;
- the waveguide body having a non-cylindrical, non-rectangular shape that is configured to resonate when energy is coupled to the waveguide body at a first frequency in the range of about 0.5 to 30 GHz;

a bulb positioned adjacent to the waveguide body; and  
a power source coupled to the waveguide body to provide energy to the waveguide body at the first frequency.

52. (New) The plasma lamp of claim 51, wherein the waveguide body has tapered walls.

53. (New) The plasma lamp of claim 46 wherein the waveguide body forms an opening and at least a portion of the bulb is positioned within the opening.

54. (New) A plasma lamp comprising:

a main body of dielectric material;  
a portion of dielectric material extending from the main body and forming an opening;  
a bulb positioned such that at least a portion of the bulb is disposed in the opening; and  
a feed coupled to the main body to provide energy to the main body of dielectric material.

55. (New) The plasma lamp of claim 54, wherein the main body is configured to resonate when energy is coupled to the main body from the feed at a first frequency in the range of about 0.5 to 30 GHz.

56. (New) The plasma lamp of claim 54, wherein the portion of dielectric material extending from the main body is substantially smaller than the main body.

57. (New) The plasma lamp of claim 56, wherein the dielectric material extending from the main body extends convexly from the main body and the opening forms a lamp chamber for the bulb.